

## **IN THE CLAIMS**

This listing of claims replaces all prior versions, and listings, in this application.

1. (withdrawn/currently amended) A method for inducing interferon  $\beta$  production in a mammalian cell, the method comprising introducing, to a mammalian cell in which a human Toll-like receptor 3 is expressed, a vector containing a gene encoding a protein that binds to the human Toll-like receptor 3, the protein comprising the amino acid sequence set forth in SEQ ID NO:2 or the amino acid sequence from position 394 to position 532 of the amino acid sequence set forth in SEQ ID NO: 2.
2. (withdrawn/currently amended) The method as set forth in Claim 1, wherein the mammalian cell is a human fibroblast, a human dendritic cell, a human intestinal epithelial cell, or a mouse fibroblast.
3. (currently amended) A method of screening ~~method~~ for a compound that inhibits the ~~for inhibiting binding between~~ between ~~[[of]]~~ a human Toll-like receptor 3 and a protein comprised of the amino acid sequence of ~~set forth in~~ SEQ ID NO:2 or the amino acid sequence from position 394 to position 532 of ~~in the amino acid sequence set forth in~~ SEQ ID NO:2, the method comprising  
contacting ~~causing~~ a candidate compound ~~to be in contact~~ with a cell transfected ~~with~~ ~~comprising a vector containing a gene encoding~~ said ~~[[the]]~~ protein, wherein said ~~[[the]]~~ cell naturally expresses human Toll-like receptor 3 ~~is expressed~~; and  
measuring ~~checking~~ whether said compound inhibits the binding between said protein and ~~[[the]]~~ human Toll-like receptor 3 ~~bind to each other or not~~.
4. (withdrawn/currently amended) A therapeutic method for treating cancer, the method comprising enhancing interferon  $\beta$  production by administering a cell including a vector containing a gene encoding a protein comprising the amino acid sequence set forth in SEQ ID NO:2 or the amino acid sequence from position 394 to position 532 in the

amino acid sequence set forth in SEQ ID NO:2, wherein a human Toll-like receptor 3 is expressed.

Claim 5 (canceled)

6. (withdrawn) The therapeutic method as set forth in Claim 4, wherein the cancer is hepatoma, kidney cancer, juvenile pharynx, papilloma, malignant lymphoma, cerebral tumor, glioblastoma, medulloblastoma, astrocytoma, or dermal malignant melanoma.

Claims 7-8 (canceled)

9. (withdrawn/currently amended) A therapeutic method for treating cancer, comprising enhancing interferon  $\beta$  production by administering a vector containing a gene encoding a protein comprising the amino acid sequence set forth in SEQ ID NO: 2 or the amino acid sequence from position 394 to position 532 in the amino acid sequence set forth in SEQ ID NO: 2, wherein a human Toll-like receptor 3 is expressed.

Claims 10-26 (canceled)

27. (withdrawn) The method as set forth in Claim 1, wherein the gene has the nucleotide sequence set forth in SEQ ID NO: 1 from position 1242 to position 1658.

Claims 28-32 (canceled)

33. (currently amended) An isolated protein comprised of the amino acid sequence from position 394 to position 532 of ~~[[in]]~~ SEQ ID NO: 2, wherein proline at position 434 is replaced with histidine, ~~and having a property of specifically binding to mammalian~~ wherein said protein specifically binds to a human Toll-like receptor 3 but ~~abnormality in~~ a property of inducing fails to induce interferon  $\beta$  production.

34. (previously presented) An isolated gene encoding the protein as set forth in Claim 33.

35. (previously presented) A recombinant expression vector having a gene as set forth in Claim 34.

36. (previously presented) A transformant cell transformed with a recombinant expression vector as set forth in Claim 35.

37. (withdrawn/currently amended) A method for inhibiting interferon  $\beta$  production in a mammalian cell, the method comprising introducing, to a mammalian cell in which a human Toll-like receptor 3 is expressed, a vector containing a gene encoding a protein that binds to the human Toll-like receptor 3, the protein comprising the amino acid sequence from position 394 to position 532 of the amino acid sequence set forth in SEQ ID NO: 2, wherein proline at position 434 is replaced with histidine.